REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 42, 43, 54 and 63 have been canceled.

Amended Claim 39 corresponds to a combination of the former Claims 39, 42, 43, 54, 60 (in part) and 63.

The amendment of Claims 48, 59 and 62 is supported by the specification and claims as originally filed.

The remaining claims have been amended to correct minor informalities.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 39, 41, 44-45, 47-48, 50-53, 55-62, 64-76 will now be active in this application.

The present invention as set forth in **Claim 39** relates to a process for determining catalytic properties of individual building blocks of a material library disposed in a substrate, the process comprising:

introducing a starting material to the building blocks for carrying out a chemical or physical or chemical and physical conversion of the starting material and obtaining for each building block an effluent stream containing a conversion product and/or the starting material;

simultaneously measuring, with a first sensor, a temperature or temperature change of each building block; and

determining, automatically by a data processing system, which of the building blocks to include in a subset of the building blocks by comparing the temperature or temperature

change with a predetermined limit value, the subset including fewer than all of the building blocks measured with the first sensor; and

measuring, with a further sensor, a further parameter which is indicative of the selectivity of each of the building blocks in only the subset, wherein the selectivity is measured in the respective effluent streams.

Claim 62 relates to an apparatus comprising:

means for receiving building blocks;

means for introducing a starting material to the building blocks;

a first sensor for measuring a temperature or a temperature change of the building blocks;

a second sensor for measuring a second parameter which is indicative of the selectivity of only a subset of the building blocks, the subset including fewer than all of the building blocks; and a data processing device that selects the building blocks to be included in the subset by comparing the first parameter with a predetermined limit value.

Willson, Akporiaye, Anderson, Cong, Choudhary, Jain, TamizhMani, Fawcett, Clausen, Hunger, Latzel, LeBlond, Moon, Newman, Topspe or Watanabe fail to disclose or suggest the processes as claimed, in particular,

- the simultaneous measurement of the temperature or a temperature change with a first sensor, e.g. thermographical measurement by an infrared camera, using a set of building blocks representing the samples to be measured;
- determining and selecting a subset of these samples by a data processing system based on the information obtained from the first sensor; and
- using each sample again as far as it is a member of the subset for a further measurement with a further sensor to determine the selectivity of each of the building blocks in only the subset.

In one embodiment, the dual measuring is carried out with the same sample and substrate using the respective effluent streams for the second measurement.

None of the cited references discloses or suggests to use the above parameters and to carry out the measurements in the above order using the same sample and the same apparatus, substrate respectively, including a selection "after the first measurement stage" for the measurement of an effluent stream.

As admitted by the Examiner, Willson fails to disclose using two analysis methods together or selecting a subset of the total candidates for a second analysis method. See Office Action of March 8, 2006, at page 4.

Akporiaye et al disclose that catalyst activity data as well as selectivity data are not available by the thermal imaging technique (see column 4, lines 20-22 of Akporiaye et al). Furthermore, they disclose that the temperature variance is the reason for errors in determination of catalyst performance comparisons (see column 4, lines 11-13 of Akporiaye et al). As a solution for that problem they disclose to fluidize all of the catalyst beds to increase heat transfer preventing an increase in the temperature.

"Preventing an increase in the temperature" is in contrast to the use of the temperature or a temperature change as a first parameter detected by a first sensor combined with a further selectivity measurement after having determined a subset of building blocks using the same sample and same apparatus in such a way that the temperature or temperature change measurement is an appropriate physical value to reduce the total set of building blocks to a subset to further analyze the selectivity of each building block of the subset.

In other words, in an embodiment of the present invention two specific parameters (temperature or temperature change and selectivity) are used, and the first parameter is used as a selection criterion for the determination of a subset for the subsequent selectivity measurement.

Again, this is in contrast to the dislosure of Akporiaye et al where it is stated that using thermography and the measurement of the selectivity are contradicting.

Additionally, Cong et al dislcose to use different measurements independently. As it can be seen from Fig. 1(a), mass spectrometry and PTD measurement are not used in that the effluent stream is used after the first measurement and the selection of a subset of building blocks based on the results of a temperature or temperature measurement.

Furthermore, the screening technique described by Cong is carried out sequentially whereby one library element is measured at a time. The use of the second detection method (i.e. the photothermal deflection method) is necessary because the sensitivity of the first detection method (i.e. Mass Spectrometry) is not high enough to determine the C_2H_4 concentration at the ppm level in the presence of high concentrations of C_2H_6. This is because the ion fragmentation pattern of C_2H_4 is a subset of that of C_2H_6 (Cong on page 11078). Consequently, the two measurement principles used by Cong et al are independent and complementary according to Cong et al.

Anderson, Choudhary, Jain, TamizhMani, Fawcett, Clausen, Hunger, Latzel, LeBlond, Moon, Newman, Topspe or Watanabe also fail to cure the defects of the primary references.

Therefore, the rejection of Claims 39, 41-45, 47-48 and 50-76 under 35 U.S.C. § 103(a) over Willson, or Akporiaye, in view of Anderson, Cong, Choudhary, Jain, TamizhMani, Fawcett, Clausen, Hunger, Latzel, LeBlond, Moon, Newman, Topspe or Watanabe is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

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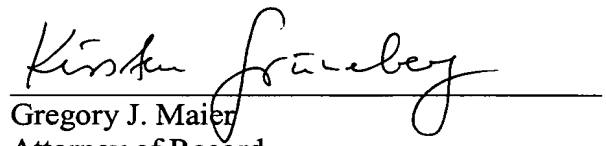

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